FIG. 1

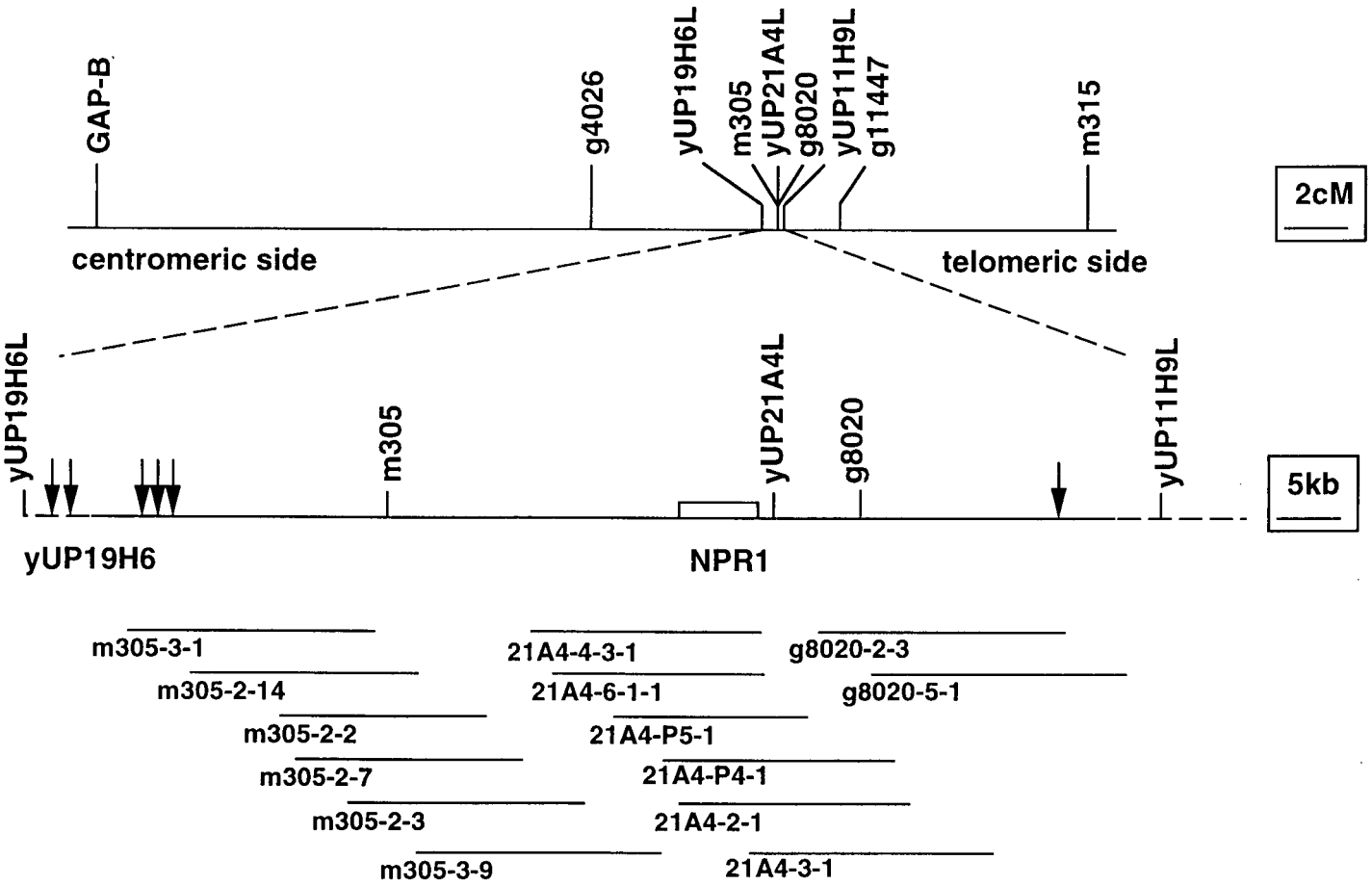

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FIG. 2A

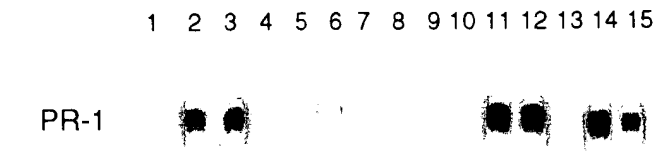
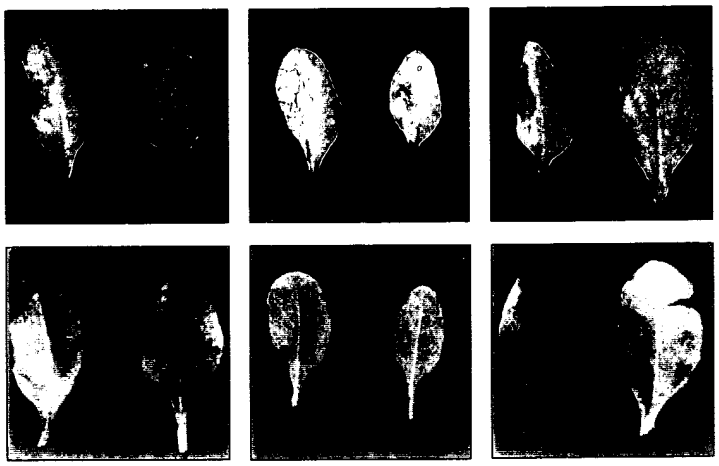


FIG. 2B



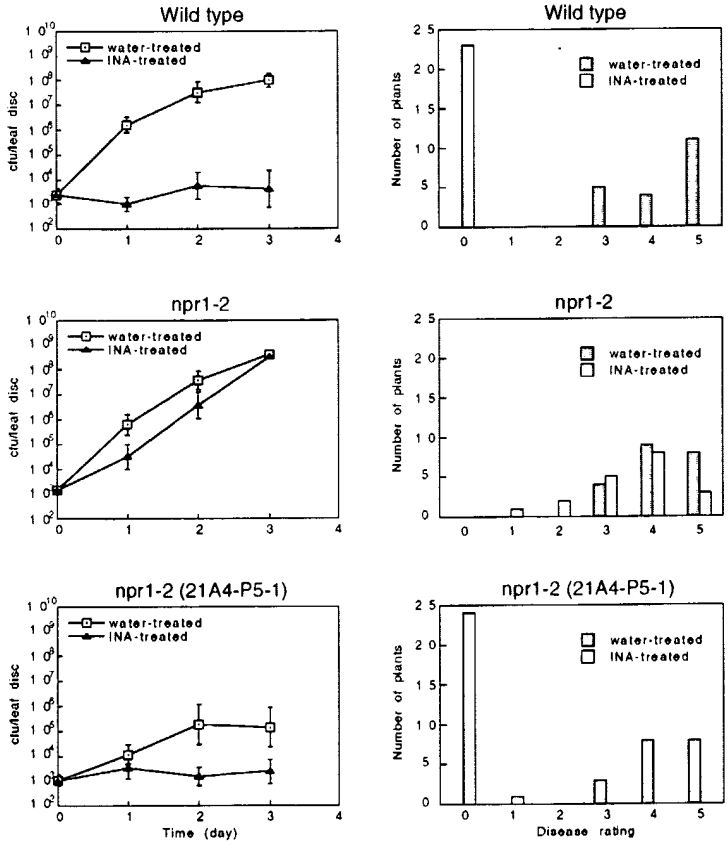


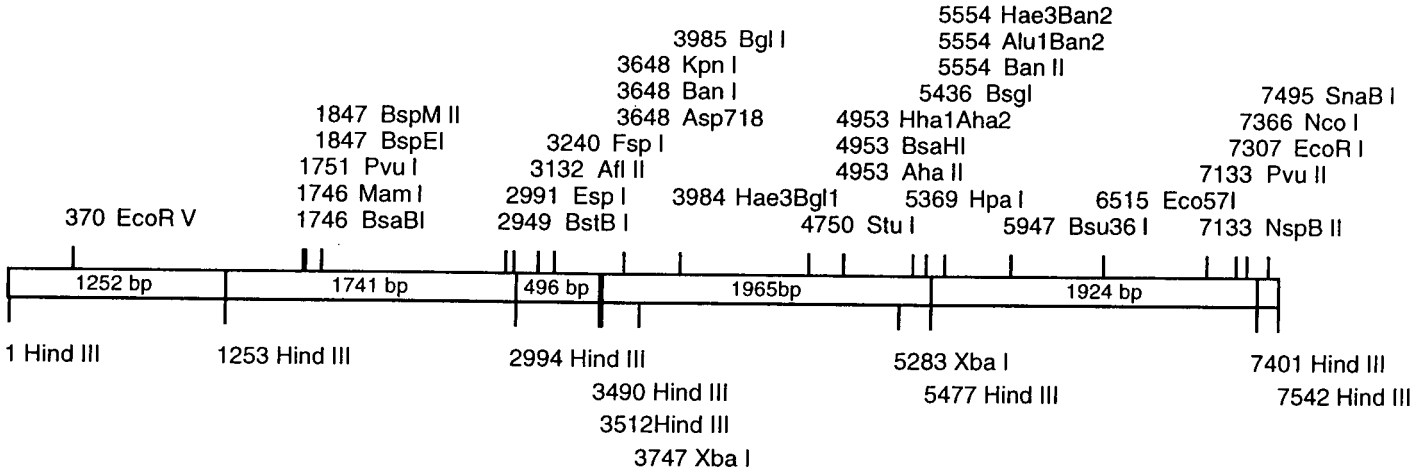
FIG. 2C

FIG. 2D

Fig 3

Restriction Map of the *NPR1* Locus (7547 bp)

Unique Sites



Hind III and Xba I Sites

FIG. 3

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        10          20          30          40          50
         *           *           *           *           *
AAGCTTGTGA TGCAAGTCAT GGGATATTGC TTTGTGTTAA GTATACAAAA
TTCGAACACT ACGTTCAGTA CCCTATAACG AAACACAATT CATATGTTTT

        60          70          80          90          100
         *           *           *           *           *
CCATCACGTG GATACATAGT CTTCAAACCA ACCACTAAAC AGTATCAGGT
GGTAGTGCAC CTATGTATCA GAAGTTTGGT TGGTGATTTG TCATAGTCCA

        110         120         130         140         150
         *           *           *           *           *
CATACCAAAG CCAGAAGTGA AGGGTTGGGA TATGTCATTG GGTTTAGCGG
GTATGGTTTC GGTCTTCACT TCCCAACCCT ATACAGTAAC CCAAATCGCC

        160         170         180         190         200
         *           *           *           *           *
TAATCGGATT GAACCCTTTC CGGTATAAAA TACAAAGGCT TTCGCAGTCT
ATTAGCCTAA CTTGGGAAAG GCCATATTTT ATGTTTCCGA AAGCGTCAGA

        210         220         230         240         250
         *           *           *           *           *
CGGCGTATGT GTATGTCTCG GGGTATCTAC CATTTGAATC ACAGAACTTT
GCCGCATACA CATACAGAGC CCCATAGATG GTAAACTTAG TGTCTTGAAA

        260         270         280         290         300
         *           *           *           *           *
TATGTGCGAA GTTTTCGATT CTGATTCGTT TACCTGGAAG AGATTAGAAA
ATACACGCTT CAAAAGCTAA GACTAAGCAA ATGGACCTTC TCTAATCTTT

        310         320         330         340         350
         *           *           *           *           *
TTTGCGTCTA CCAAAAACAG ACAGATTAAT TTTTTCCAAC CCGATACAAG
AAACGCAGAT GGTTTTTGTC TGTCTAATTA AAAAAGGTTG GGCTATGTTC

        360         370         380         390         400
         *           *           *           *           *
TTTCGGGGTT CTTGCATTGG ATATCACGGA ACAACAATGT GATCCGGTTT
AAAGCCCCAA GAACGTAACC TATAGTGCCT TGTTGTTACA CTAGGCCAAA

        410         420         430         440         450
         *           *           *           *           *
TGTCTCAAAA CCGAAACTTG GTCCTTCTTC CATACTCCGA ACTCTGATGT
ACAGAGTTTT GGCTTTGAAC CAGGAAGAAG GTATGAGGCT TGAGACTACA

        460         470         480         490         500
         *           *           *           *           *
TTTCTCAGGA TTAGTCAGAT ACGAAGGGAA GCTAGGTGCT ATTCGTCAGT
AAAGAGTCCT AATCAGTCTA TGCTTCCCTT CGATCCACGA TAAGCAGTCA

        510         520         530         540         550
         *           *           *           *           *
GGACAAACAA AGATCAAGAA GATGTTCACG AGTTATGGGT TTTAAAGAGC
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5,858,652

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CCTGTTTGTT TCTAGTTCTT CTACAAGTGC TCAATACCCA AAATTTCTCG

       560        570        580        590        600
         *          *          *          *          *
AGTTTTGAAA AGTCGTGGGT TAAAGTGAAA GATATTAAAA GCATTGGAGT
TCAAAACTTT TCAGCACCCA ATTTCACTTT CTATAATTTT CGTAACCTCA

       610        620        630        640        650
         *          *          *          *          *
AGATTTGATT ACGTGGACTC CAAGCAACGA CGTTGTATTG TTTCGTAGTA
TCTAAACTAA TGCACCTGAG GTTCGTTGCT GCAACATAAC AAAGCATCAT

       660        670        680        690        700
         *          *          *          *          *
GTGATCGTGG TTGCCTCTAC AACATAAACG CAGAGAAGTT GAATTTAGTT
CACTAGCACC AACGGAGATG TTGTATTTGC GTCTCTTCAA CTTAAATCAA

       710        720        730        740        750
         *          *          *          *          *
TATGCAAAAA AAGAGGGATC TGATTGTTCT TTCGTTTGTT TTCCGTTTTG
ATACGTTTTT TTCTCCCTAG ACTAACAAGA AAGCAAACAA AAGGCAAAAC

       760        770        780        790        800
         *          *          *          *          *
TTCTGATTAC GAGAGGGTTG ATCTGAACGG AAGAAGCAAC GGGCCGACAC
AAGACTAATG CTCTCCCAAC TAGACTTGCC TTCTTCGTTG CCCGGCTGTG

       810        820        830        840        850
         *          *          *          *          *
TTTAAAAAAA AAATAAAAAA AATGGGCCGA CAAATGCAAA CGTAGTTGAC
AAATTTTTTT TTTATTTTTT TTACCCGGCT GTTTACGTTT GCATCAACTG

       860        870        880        890        900
         *          *          *          *          *
AAGGATCTCA AGTCTCAAGT CTCAATTGGC TCGCTCATTG TGGGGCATAA
TTCCTAGAGT TCAGAGTTCA GAGTTAACCG AGCGAGTAAC ACCCCGTATT

       910        920        930        940        950
         *          *          *          *          *
ATATATCTAG TGATGTTTAA TTGTTTTTTA TAAGGTAAAA AGGAATATTG
TATATAGATC ACTACAAATT AACAAAAAAT ATTCCATTTT TCCTTATAAC

       960        970        980        990       1000
         *          *          *          *          *
AATTTTGTTT CTTAGGTTTA TGTAATAATA CCAAACATTG TTTTATGAAT
TTAAAACAAA GAATCCAAAT ACATTATTAT GGTTTGTAAC AAAATACTTA

      1010       1020       1030       1040       1050
         *          *          *          *          *
ATTTAATCTG ATTTTTTGGC TAGTTATTTT ATTATATCAA GGGTTCCTGT
TAAATTAGAC TAAAAAACCG ATCAATAAAA TAATATAGTT CCCAAGGACA

      1060       1070       1080       1090       1100
         *          *          *          *          *
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US 6,660,849 B2

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TTATAGTTGA AAACAGTTAC TGTATAGAAA ATAGTGTCCC AATTTTCTCT
AATATCAACT TTTGTCAATG ACATATCTTT TATCACAGGG TTAAAAGAGA

      1110       1120       1130       1140       1150
         *          *          *          *          *
CTTAAATAAT ATATTAGTTA ATAAAAGATA TTTTAATATA TTAGATATAC
GAATTTATTA TATAATCAAT TATTTTCTAT AAAATTATAT AATCTATATG

      1160       1170       1180       1190       1200
         *          *          *          *          *
AATAATATCT AAAGCAACAC ATATTTAGAC ACAACACGTA ATATCTTACT
TTATTATAGA TTTCGTTGTG TATAAATCTG TGTTGTGCAT TATAGAATGA

      1210       1220       1230       1240       1250
         *          *          *          *          *
ATTGTTTACA TATATTTATA GCTTACCAAT ATAACCCGTA TCTATGTTTT
TAACAAATGT ATATAAATAT CGAATGGTTA TATTGGGCAT AGATACAAAA

      1260       1270       1280       1290       1300
         *          *          *          *          *
ATAAGCTTTT ATACAATATA TGTACGGTAT GCTGTCCACG TATATATATT
TATTCGAAAA TATGTTATAT ACATGCCATA CGACAGGTGC ATATATATAA

      1310       1320       1330       1340       1350
         *          *          *          *          *
CTCCAAAAAA AACGCATGGT ACACAAAATT TATTAAATAT TTGGCAATTG
GAGGTTTTTT TTGCGTACCA TGTGTTTTAA ATAATTTATA AACCGTTAAC

      1360       1370       1380       1390       1400
         *          *          *          *          *
GGTGTTTATC TAAAGTTTAT CACAATATTT ATCAACTATA ATAGATGGTA
CCACAAATAG ATTTCAAATA GTGTTATAAA TAGTTGATAT TATCTACCAT

      1410       1420       1430       1440       1450
         *          *          *          *          *
GAAGATAAAA AAATTATATC AGATTGATTC AATTAAATTT TATAATATAT
CTTCTATTTT TTTAATATAG TCTAACTAAG TTAATTTAAA ATATTATATA

      1460       1470       1480       1490       1500
         *          *          *          *          *
CATTTTAAAA AATTAATTAA AAGAAAACTA TTTCATAAAA TTGTTCAAAA
GTAAAATTTT TTAATTAATT TTCTTTTGAT AAAGTATTTT AACAAGTTTT

      1510       1520       1530       1540       1550
         *          *          *          *          *
GATAATTAGT AAAATTAATT AAATATGTGA TGCTATTGAA TTATAGAGAG
CTATTAATCA TTTTAATTAA TTTATACACT ACGATAACTT AATATCTCTC

      1560       1570       1580       1590       1600
         *          *          *          *          *
TTATTGTAAA TTTACTTAAA ATCATACAAA TCTTATCCTA ATTTAACTTA
AATAACATTT AAATGAATTT TAGTATGTTT AGAATAGGAT TAAATTGAAT

      1610       1620       1630       1640       1650
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         *          *          *          *          *
TCATTTAAGA AATACAAAAG TAAAAAACGC GGAAAGCAAT AATTTATTTA
AGTAAATTCT TTATGTTTTC ATTTTTTGCG CCTTTCGTTA TTAAATAAAT

      1660       1670       1680       1690       1700
         *          *          *          *          *
CCTTATTATA ACTCCTATAT AAAGTACTCT GTTTATTCAA CATAATCTTA
GGAATAATAT TGAGGATATA TTTCATGAGA CAAATAAGTT GTATTAGAAT

      1710       1720       1730       1740       1750
         *          *          *          *          *
CGTTGTTGTA TTCATAGGCA TCTTTAACCT ATCTTTTCAT TTTCTGATCT
GCAACAACAT AAGTATCCGT AGAAATTGGA TAGAAAAGTA AAAGACTAGA

      1760       1770       1780       1790       1800
         *          *          *          *          *
CGATCGTTTT CGATCCAACA AAATGAGTCT ACCGGTGAGG AACCAAGAGG
GCTAGCAAAA GCTAGGTTGT TTTACTCAGA TGGCCACTCC TTGGTTCTCC

      1810       1820       1830       1840       1850
         *          *          *          *          *
TGATTATGCA GATTCCTTCT TCTTCTCAGT TTCCAGCAAC ATCGAGTCCG
ACTAATACGT CTAAGGAAGA AGAAGAGTCA AAGGTCGTTG TAGCTCAGGC

      1860       1870       1880       1890       1900
         *          *          *          *          *
GAAAACACCA ATCAAGTGAA GGATGAGCCA AATTTGTTTA GACGTGTTAT
CTTTTGTGGT TAGTTCACTT CCTACTCGGT TTAAACAAAT CTGCACAATA

      1910       1920       1930       1940       1950
         *          *          *          *          *
GAATTTGCTT TTACGTCGTA GTTATTGAAA AAGCTGATTT ATCGCATGAT
CTTAAACGAA AATGCAGCAT CAATAACTTT TTCGACTAAA TAGCGTACTA

      1960       1970       1980       1990       2000
         *          *          *          *          *
TCAGAACGAG AAGTTGAAGG CAAATAACTA AAGAAGTCTT TTATATGTAT
AGTCTTGCTC TTCAACTTCC GTTTATTGAT TTCTTCAGAA AATATACATA

      2010       2020       2030       2040       2050
         *          *          *          *          *
ACAATAATTG TTTTTAAATC AAATCCTAAT TAAAAAAATA TATTCATTAT
TGTTATTAAC AAAAATTTAG TTTAGGATTA ATTTTTTTAT ATAAGTAATA

      2060       2070       2080       2090       2100
         *          *          *          *          *
GACTTTCATG TTTTTAATGT AATTTATTCC TATATCTATA ATGATTTTTG
CTGAAAGTAC AAAAATTACA TTAAATAAGG ATATAGATAT TACTAAAAAC

      2110       2120       2130       2140       2150
         *          *          *          *          *
TTGTGAAGAG CGTTTTCATT TGCTATAGAA CAAGGAGAAT AGTTCCAGGA
AACACTTCTC GCAAAAGTAA ACGATATCTT GTTCCTCTTA TCAAGGTCCT
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      2160        2170        2180        2190        2200
         *           *           *           *           *
AATATTCGAC TTGATTTAAT TATAGTGTAA ACATGCTGAA CACTGAAAAT
TTATAAGCTG AACTAAATTA ATATCACATT TGTACGACTT GTGACTTTTA

      2210        2220        2230        2240        2250
         *           *           *           *           *
TACTTTTTCA ATAAACGAAA AATATAATAT ACATTACAAA ACTTATGTGA
ATGAAAAAGT TATTTGCTTT TTATATTATA TGTAATGTTT TGAATACACT

      2260        2270        2280        2290        2300
         *           *           *           *           *
ATAAAGCATG AGACTTAATA TACGTTCCCT TTATCATTTT ACTTCAAAGA
TATTTCGTAC TCTGAATTAT ATGCAAGGGA AATAGTAAAA TGAAGTTTCT

      2310        2320        2330        2340        2350
         *           *           *           *           *
AAATAAACAG AAATGTAACT TTCACATGTA AATCTAATTC TTAAATTTAA
TTTATTTGTC TTTACATTGA AAGTGTACAT TTAGATTAAG AATTTAAATT

      2360        2370        2380        2390        2400
         *           *           *           *           *
AAAATAATAT TTATATATTT ATATGAAAAT AACGAACCGG ATGAAAAATA
TTTTATTATA AATATATAAA TATACTTTTA TTGCTTGGCC TACTTTTTAT

      2410        2420        2430        2440        2450
         *           *           *           *           *
AATTTTATAT ATTTATATCA TCTCCAAATC TAGTTTGGTT CAGGGGCTTA
TTAAAATATA TAAATATAGT AGAGGTTTAG ATCAAACCAA GTCCCCGAAT

      2460        2470        2480        2490        2500
         *           *           *           *           *
CCGAACCGGA TTGAACTTCT CATATACAAA AATTAGCAAC ACAAAATGTC
GGCTTGGCCT AACTTGAAGA GTATATGTTT TTAATCGTTG TGTTTTACAG

      2510        2520        2530        2540        2550
         *           *           *           *           *
TCCGGTATAA ATACTAACAT TTATAACCCG AACCGGTTTA GCTTCCTGTT
AGGCCATATT TATGATTGTA AATATTGGGC TTGGCCAAAT CGAAGGACAA

      2560        2570        2580        2590        2600
         *           *           *           *           *
ATATCTTTTT AAAAAAGATC TCTGACAAAG ATTCCTTTCC TGGAAATTTA
TATAGAAAAA TTTTTTCTAG AGACTGTTTC TAAGGAAAGG ACCTTTAAAT

      2610        2620        2630        2640        2650
         *           *           *           *           *
CCGGTTTTGG TGAAATGTAA ACCGTGGGAC GAGGATGCTT CTTCATATCT
GGCCAAAACC ACTTTACATT TGGCACCCTG CTCCTACGAA GAAGTATAGA

      2660        2670        2680        2690        2700
         *           *           *           *           *
CACCACCACT CTCGTTGACT GGACTTGGCT CTGCTCGTCA ATGGTTATCT
GTGGTGGTGA GAGCAACTGA CCTGAACCGA GACGAGCAGT TACCAATAGA
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U.S. Patent Sep. 26, 2000

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      2710        2720        2730        2740        2750
         *           *           *           *           *
TCGATCTTAA ACCAAATCCA GTTGATAAGG TCTCTTCGTT GATTAGCAGA
AGCTAGAATT TGGTTTAGGT CAACTATTCC AGAGAAGCAA CTAATCGTCT

      2760        2770        2780        2790        2800
         *           *           *           *           *
GATCTCTTTA ATTTGTGAAT TTCAATTCAT CGGAACCTGT TGATGGACAC
CTAGAGAAAT TAAACACTTA AAGTTAAGTA GCCTTGGACA ACTACCTGTG

      2810        2820        2830        2840        2850
         *           *           *           *           *
CACCATTGAT GGATTCGCCG ATTCTTATGA AATCAGCAGC ACTAGTTTCG
GTGGTAACTA CCTAAGCGGC TAAGAATACT TTAGTCGTCG TGATCAAAGC

      2860        2870        2880        2890        2900
         *           *           *           *           *
TCGCTACCGA TAACACCGAC TCCTCTATTG TTTATCTGGC CGCCGAACAA
AGCGATGGCT ATTGTGGCTG AGGAGATAAC AAATAGACCG GCGGCTTGTT

      2910        2920        2930        2940        2950
         *           *           *           *           *
GTACTCACCG GACCTGATGT ATCTGCTCTG CAATTGCTCT CCAACAGCTT
CATGAGTGGC CTGGACTACA TAGACGAGAC GTTAACGAGA GGTTGTCGAA

      2960        2970        2980        2990        3000
         *           *           *           *           *
CGAATCCGTC TTTGACTCGC CGGATGATTT CTACAGCGAC GCTAAGCTTG
GCTTAGGCAG AAACTGAGCG GCCTACTAAA GATGTCGCTG CGATTCGAAC

      3010        3020        3030        3040        3050
         *           *           *           *           *
TTCTCTCCGA CGGCCGGGAA GTTTCTTTCC ACCGGTGCGT TTTGTCAGCG
AAGAGAGGCT GCCGGCCCTT CAAAGAAAGG TGGCCACGCA AAACAGTCGC

      3060        3070        3080        3090        3100
         *           *           *           *           *
AGAAGCTCTT TCTTCAAGAG CGCTTTAGCC GCCGCTAAGA AGGAGAAAGA
TCTTCGAGAA AGAAGTTCTC GCGAAATCGG CGGCGATTCT TCCTCTTTCT

      3110        3120        3130        3140        3150
         *           *           *           *           *
CTCCAACAAC ACCGCCGCCG TGAAGCTCGA GCTTAAGGAG ATTGCCAAGG
GAGGTTGTTG TGGCGGCGGC ACTTCGAGCT CGAATTCCTC TAACGGTTCC

      3160        3170        3180        3190        3200
         *           *           *           *           *
ATTACGAAGT CGGTTTCGAT TCGGTTGTGA CTGTTTTGGC TTATGTTTAC
TAATGCTTCA GCCAAAGCTA AGCCAACACT GACAAAACCG AATACAAATG

      3210        3220        3230        3240        3250
         *           *           *           *           *
AGCAGCAGAG TGAGACCGCC GCCTAAAGGA GTTTCTGAAT GCGCAGACGA
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US 9,809,828 B2

TCGTCGTCTC ACTCTGGCGG CGGATTTCCT CAAAGACTTA CGCGTCTGCT

3260 3270 3280 3290 3300
* * * * *

GAATTGCTGC CACGTGGCTT GCCGGCCGGC GGTGGATTTC ATGTTGGAGG
CTTAACGACG GTGCACCGAA CGGCCGGCCG CCACCTAAAG TACAACCTCC

3310 3320 3330 3340 3350
* * * * *

TTCTCTATTT GGCTTTCATC TTCAAGATCC CTGAATTAAT TACTCTCTAT
AAGAGATAAA CCGAAAGTAG AAGTTCTAGG GACTTAATTA ATGAGAGATA

3360 3370 3380 3390 3400
* * * * *

CAGGTAAAAC ACCATCTGCA TTAAGCTATG GTTACACATT CATGAATATG
GTCCATTTTG TGGTAGACGT AATTCGATAC CAATGTGTAA GTACTTATAC

3410 3420 3430 3440 3450
* * * * *

TTCTTACTTG AGTACTTGTA TTTGTATTTC AGAGGCACTT ATTGGACGTT
AAGAATGAAC TCATGAACAT AAACATAAAG TCTCCGTGAA TAACCTGCAA

3460 3470 3480 3490 3500
* * * * *

GTAGACAAAG TTGTTATAGA GGACACATTG GTTATACTCA AGCTTGCTAA
CATCTGTTTC AACAATATCT CCTGTGTAAC CAATATGAGT TCGAACGATT

3510 3520 3530 3540 3550
* * * * *

TATATGTGGT AAAGCTTGTA TGAAGCTATT GGATAGATGT AAAGAGATTA
ATATACACCA TTTCGAACAT ACTTCGATAA CCTATCTACA TTTCTCTAAT

3560 3570 3580 3590 3600
* * * * *

TTGTCAAGTC TAATGTAGAT ATGGTTAGTC TTGAAAAGTC ATTGCCGGAA
AACAGTTCAG ATTACATCTA TACCAATCAG AACTTTTCAG TAACGGCCTT

3610 3620 3630 3640 3650
* * * * *

GAGCTTGTTA AAGAGATAAT TGATAGACGT AAAGAGCTTG GTTTGGAGGT
CTCGAACAAT TTCTCTATTA ACTATCTGCA TTTCTCGAAC CAAACCTCCA

3660 3670 3680 3690 3700
* * * * *

ACCTAAAGTA AAGAAACATG TCTCGAATGT ACATAAGGCA CTTGACTCGG
TGGATTTCAT TTCTTTGTAC AGAGCTTACA TGTATTCCGT GAACTGAGCC

3710 3720 3730 3740 3750
* * * * *

ATGATATTGA GTTAGTCAAG TTGCTTTTGA AAGAGGATCA CACCAATCTA
TACTATAACT CAATCAGTTC AACGAAAACT TTCTCCTAGT GTGGTTAGAT

3760 3770 3780 3790 3800
* * * * *

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GATGATGCGT GTGCTCTTCA TTTCGCTGTT GCATATTGCA ATGTGAAGAC
CTACTACGCA CACGAGAAGT AAAGCGACAA CGTATAACGT TACACTTCTG

      3810        3820        3830        3840        3850
         *           *           *           *           *
CGCAACAGAT CTTTTAAAAC TTGATCTTGC CGATGTCAAC CATAGGAATC
GCGTTGTCTA GAAAATTTTG AACTAGAACG GCTACAGTTG GTATCCTTAG

      3860        3870        3880        3890        3900
         *           *           *           *           *
CGAGGGGATA TACGGTGCTT CATGTTGCTG CGATGCGGAA GGAGCCACAA
GCTCCCCTAT ATGCCACGAA GTACAACGAC GCTACGCCTT CCTCGGTGTT

      3910        3920        3930        3940        3950
         *           *           *           *           *
TTGATACTAT CTCTATTGGA AAAAGGTGCA AGTGCATCAG AAGCAACTTT
AACTATGATA GAGATAACCT TTTTCCACGT TCACGTAGTC TTCGTTGAAA

      3960        3970        3980        3990        4000
         *           *           *           *           *
GGAAGGTAGA ACCGCACTCA TGATCGCAAA ACAAGCCACT ATGGCGGTTG
CCTTCCATCT TGGCGTGAGT ACTAGCGTTT TGTTCGGTGA TACCGCCAAC

      4010        4020        4030        4040        4050
         *           *           *           *           *
AATGTAATAA TATCCCGGAG CAATGCAAGC ATTCTCTCAA AGGCCGACTA
TTACATTATT ATAGGGCCTC GTTACGTTCG TAAGAGAGTT TCCGGCTGAT

      4060        4070        4080        4090        4100
         *           *           *           *           *
TGTGTAGAAA TACTAGAGCA AGAAGACAAA CGAGAACAAA TTCCTAGAGA
ACACATCTTT ATGATCTCGT TCTTCTGTTT GCTCTTGTTT AAGGATCTCT

      4110        4120        4130        4140        4150
         *           *           *           *           *
TGTTCCTCCC TCTTTTGCAG TGGCGGCCGA TGAATTGAAG ATGACGCTGC
ACAAGGAGGG AGAAAACGTC ACCGCCGGCT ACTTAACTTC TACTGCGACG

      4160        4170        4180        4190        4200
         *           *           *           *           *
TCGATCTTGA AAATAGAGGT ATCTATCAAG TCTTATTTCT TATATGTTTG
AGCTAGAACT TTTATCTCCA TAGATAGTTC AGAATAAAGA ATATACAAAC

      4210        4220        4230        4240        4250
         *           *           *           *           *
AATTAAATTT ATGTCCTCTC TATTAGGAAA CTGAGTGAAC TAATGATAAC
TTAATTTAAA TACAGGAGAG ATAATCCTTT GACTCACTTG ATTACTATTG

      4260        4270        4280        4290        4300
         *           *           *           *           *
TATTCTTTGT GTCGTCCACT GTTTAGTTGC ACTTGCTCAA CGTCTTTTTC
ATAAGAAACA CAGCAGGTGA CAAATCAACG TGAACGAGTT GCAGAAAAAG

      4310        4320        4330        4340        4350
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         *          *          *          *          *
CAACGGAAGC ACAAGCTGCA ATGGAGATCG CCGAAATGAA GGGAACATGT
GTTGCCTTCG TGTTCGACGT TACCTCTAGC GGCTTTACTT CCCTTGTACA

      4360       4370       4380       4390       4400
         *          *          *          *          *
GAGTTCATAG TGACTAGCCT CGAGCCTGAC CGTCTCACTG GTACGAAGAG
CTCAAGTATC ACTGATCGGA GCTCGGACTG GCAGAGTGAC CATGCTTCTC

      4410       4420       4430       4440       4450
         *          *          *          *          *
AACATCACCG GGTGTAAAGA TAGCACCTTT CAGAATCCTA GAAGAGCATC
TTGTAGTGGC CCACATTTCT ATCGTGGAAA GTCTTAGGAT CTTCTCGTAG

      4460       4470       4480       4490       4500
         *          *          *          *          *
AAAGTAGACT AAAAGCGCTT TCTAAAACCG GTATGGATTC TCACCCACTT
TTTCATCTGA TTTTCGCGAA AGATTTTGGC CATACCTAAG AGTGGGTGAA

      4510       4520       4530       4540       4550
         *          *          *          *          *
CATCGGACTC CTTATCACAA AAAACAAAAC TAAATGATCT TTAAACATGG
GTAGCCTGAG GAATAGTGTT TTTTGTTTTG ATTTACTAGA AATTTGTACC

      4560       4570       4580       4590       4600
         *          *          *          *          *
TTTTGTTACT TGCTGTCTGA CCTTGTTTTT TTATCATCAG TGGAACTCGG
AAAACAATGA ACGACAGACT GGAACAAAAA AATAGTAGTC ACCTTGAGCC

      4610       4620       4630       4640       4650
         *          *          *          *          *
GAAACGATTC TTCCCGCGCT GTTCGGCAGT GCTCGACCAG ATTATGAACT
CTTTGCTAAG AAGGGCGCGA CAAGCCGTCA CGAGCTGGTC TAATACTTGA

      4660       4670       4680       4690       4700
         *          *          *          *          *
GTGAGGACTT GACTCAACTG GCTTGCGGAG AAGACGACAC TGCTGAAGAA
CACTCCTGAA CTGAGTTGAC CGAACGCCTC TTCTGCTGTG ACGACTTCTT

      4710       4720       4730       4740       4750
         *          *          *          *          *
ACGACTACAA AAGAAGCAAA GGTACATGGA AATACAAGAG ACACTAAAGA
TGCTGATGTT TTCTTCGTTT CCATGTACCT TTATGTTCTC TGTGATTTCT

      4760       4770       4780       4790       4800
         *          *          *          *          *
AGGCCTTTAG TGAGGACAAT TTGGAATTAG GAAATTCGTC CCTGACAGAT
TCCGGAAATC ACTCCTGTTA AACCTTAATC CTTTAAGCAG GGACTGTCTA

      4810       4820       4830       4840       4850
         *          *          *          *          *
TCGACTTCTT CCACATCGAA ATCAACCGGT GGAAAGAGGT CTAACCGTAA
AGCTGAAGAA GGTGTAGCTT TAGTTGGCCA CCTTTCTCCA GATTGGCATT
```

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       4860        4870        4880        4890        4900
         *           *           *           *           *
ACTCTCTCAT CGTCGTCGGT GAGACTCTTG CCTCTTAGTG TAATTTTTGC
TGAGAGAGTA GCAGCAGCCA CTCTGAGAAC GGAGAATCAC ATTAAAAACG

       4910        4920        4930        4940        4950
         *           *           *           *           *
TGTACCATAT AATTCTGTTT TCATGATGAC TGTAACTGTT TATGTCTATC
ACATGGTATA TTAAGACAAA AGTACTACTG ACATTGACAA ATACAGATAG

       4960        4970        4980        4990        5000
         *           *           *           *           *
GTTGGCGTCA TATAGTTTCG CTCTTCGTTT TGCATCCTGT GTATTATTGC
CAACCGCAGT ATATCAAAGC GAGAAGCAAA ACGTAGGACA CATAATAACG

       5010        5020        5030        5040        5050
         *           *           *           *           *
TGCAGGTGTG CTTCAAACAA ATGTTGTAAC AATTTGAACC AATGGTATAC
ACGTCCACAC GAAGTTTGTT TACAACATTG TTAAACTTGG TTACCATATG

       5060        5070        5080        5090        5100
         *           *           *           *           *
AGATTTGTAA TATATATTTA TGTACATCAA CAATAACCCA TGATGGTGTT
TCTAAACATT ATATATAAAT ACATGTAGTT GTTATTGGGT ACTACCACAA

       5110        5120        5130        5140        5150
         *           *           *           *           *
ACAGAGTTGC TAGAATCAAA GTGTGAAATA ATGTCAAATT GTTCATCTGT
TGTCTCAACG ATCTTAGTTT CACACTTTAT TACAGTTTAA CAAGTAGACA

       5160        5170        5180        5190        5200
         *           *           *           *           *
TGGATATTTT CCACCAAGAA CCAAAAGAAT ATTCAAGTTC CCTGAACTTC
ACCTATAAAA GGTGGTTCTT GGTTTTCTTA TAAGTTCAAG GGACTTGAAG

       5210        5220        5230        5240        5250
         *           *           *           *           *
TGGCAACATT CATGTTATAT GTATCTTCCT AATTCTTCCT TTAACCTTTT
ACCGTTGTAA GTACAATATA CATAGAAGGA TTAAGAAGGA AATTGGAAAA

       5260        5270        5280        5290        5300
         *           *           *           *           *
GTAACTCGAA TTACACAGCA AGTTAGTTTC AGGTCTAGAG ATAAGAGAAC
CATTGAGCTT AATGTGTCGT TCAATCAAAG TCCAGATCTC TATTCTCTTG

       5310        5320        5330        5340        5350
         *           *           *           *           *
ACTGAGTGGG CGTGTAAGGT GCATTCTCCT AGTCAGCTCC ATTGCATCCA
TGACTCACCC GCACATTCCA CGTAAGAGGA TCAGTCGAGG TAACGTAGGT

       5360        5370        5380        5390        5400
         *           *           *           *           *
ACATTTGTGA ATGACACAAG TTAACAATCC TTTGCACCAT TTCTGGGTGC
TGTAAACACT TACTGTGTTC AATTGTTAGG AAACGTGGTA AAGACCCACG
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US 6,686,463 B2

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      5410        5420        5430        5440        5450
        *           *           *           *           *
ATACATGGAA ACTTCTTCGA TTGAAACTTC CCACATGTGC AGGTGCGTTC
TATGTACCTT TGAAGAAGCT AACTTTGAAG GGTGTACACG TCCACGCAAG

      5460        5470        5480        5490        5500
        *           *           *           *           *
GCTGTCACTG ATAGACCAAG AGACTGAAAG CTTTCACAAA TTGCCCTCAA
CGACAGTGAC TATCTGGTTC TCTGACTTTC GAAAGTGTTT AACGGGAGTT

      5510        5520        5530        5540        5550
        *           *           *           *           *
ATCTTCTGTT TCTATCGTCA TGACTCCATA TCTCCGACCA CTGGTCATGA
TAGAAGACAA AGATAGCAGT ACTGAGGTAT AGAGGCTGGT GACCAGTACT

      5560        5570        5580        5590        5600
        *           *           *           *           *
GCCAGAGCCC ACTGATTTTG AGGGAATTGG GCTAACCATT TCCGAGCTTC
CGGTCTCGGG TGACTAAAAC TCCCTTAACC CGATTGGTAA AGGCTCGAAG

      5610        5620        5630        5640        5650
        *           *           *           *           *
TGAGTCCTTC TTTTTGATGT CCTTTATGTA GGAATCAAAT TCTTCCTTCT
ACTCAGGAAG AAAAACTACA GGAAATACAT CCTTAGTTTA AGAAGGAAGA

      5660        5670        5680        5690        5700
        *           *           *           *           *
GACTTGTGGA TCCAGCCTGC TTCACAAGGC TCACCAGGTT GTAGTCTCCA
CTGAACACCT AGGTCGGACG AAGTGTTCCG AGTGGTCCAA CATCAGAGGT

      5710        5720        5730        5740        5750
        *           *           *           *           *
AAAATATCAT GGAATTGTAA GCAAAAACAA TCCAGACAGA ACCTGTGATA
TTTTATAGTA CCTTAACATT CGTTTTTGTT AGGTCTGTCT TGGACACTAT

      5760        5770        5780        5790        5800
        *           *           *           *           *
GACCCAAGGT TCTTGCCACA GTGATCCGGG TTCGTTAATA ACAGCAACTA
CTGGGTTCCA AGAACGGTGT CACTAGGCCC AAGCAATTAT TGTCGTTGAT

      5810        5820        5830        5840        5850
        *           *           *           *           *
TGTCCGGGTG AGGACTGGAG ACGAAGCAAA CGTCTTTCCT TTGTGTTACC
ACAGGCCCAC TCCTGACCTC TGCTTCGTTT GCAGAAAGGA AACACAATGG

      5860        5870        5880        5890        5900
        *           *           *           *           *
TTCTCTCTGA TATTAGTGAG AAACCAACGC CAACTATCAG TGGACACTTC
AAGAGAGACT ATAATCACTC TTTGGTTGCG GTTGATAGTC ACCTGTGAAG

      5910        5920        5930        5940        5950
        *           *           *           *           *
TTTGGTAAGC GGAAAGCAAG CGGGAAAAAC AATCATCAGC GTCGAGTCCT
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SUBSTITUTE SHEET (RULE 26)

AAACCATTCG CCTTTCGTTC GCCCTTTTTG TTAGTAGTCG CAGCTCAGGA

5960 5970 5980 5990 6000
* * * * *

GAGGAAAATC ATCAATTTCA TAGGGGTACT TGCCGTTCAA GTCTTTTGAA
CTCCTTTTAG TAGTTAAAGT ATCCCCATGA ACGGCAAGTT CAGAAAACTT

6010 6020 6030 6040 6050
* * * * *

TCCACTATGA TCAGAGGTCT ACAGTGTTGA AACCCTTCAA TGGACTGTGG
AGGTGATACT AGTCTCCAGA TGTCACAACT TTGGGAAGTT ACCTGACACC

6060 6070 6080 6090 6100
* * * * *

AAACGCCCAA AACGCGCCAC CGAAGGATGC AAATTCAGGA TTAGGGAAAA
TTTGCGGGTT TTGCGCGGTG GCTTCCTACG TTTAAGTCCT AATCCCTTTT

6110 6120 6130 6140 6150
* * * * *

GCTCATATTG CAGTCCACAA GTAGCCCATT AGATGAGTGA AATGCAGCCA
CGAGTATAAC GTCAGGTGTT CATCGGGTAA TCTACTCACT TTACGTCGGT

6160 6170 6180 6190 6200
* * * * *

ATTAGTTTAG GCAATACTCT GAAACTCTGA TCTTTGATTA CTTCCTGTTC
TAATCAAATC CGTTATGAGA CTTTGAGACT AGAAACTAAT GAAGGACAAG

6210 6220 6230 6240 6250
* * * * *

TGCTGCCCGC AGCTTTGAAG TTTTAAGCAT GTCACCAAAC TTTTCAACTC
ACGACGGGCG TCGAAACTTC AAAATTCGTA CAGTGGTTTG AAAAGTTGAG

6260 6270 6280 6290 6300
* * * * *

TGCTGTTAGA GTGGGTTGTA CCCTGATCAG ACACTCAATC TCTTCTGCTG
ACGACAATCT CACCCAACAT GGGACTAGTC TGTGAGTTAG AGAAGACGAC

6310 6320 6330 6340 6350
* * * * *

CAAATTACAA GTTGAAGTTT TCCGGCTTAA TAGAACAACA AGTATGTGGA
GTTTAATGTT CAACTTCAAA AGGCCGAATT ATCTTGTTGT TCATACACCT

6360 6370 6380 6390 6400
* * * * *

CCAACTACAC TTAGTTATCT TAACAAGTCC ATGTTCTTCT ATTCAATCTG
GGTTGATGTG AATCAATAGA ATTGTTCAGG TACAAGAAGA TAAGTTAGAC

6410 6420 6430 6440 6450
* * * * *

CCCGACGCGA CCAATTGCAT TTCCATCTGA TGCATTTAAA CGTATACTCG
GGGCTGCGCT GGTTAACGTA AAGGTAGACT ACGTAAATTT GCATATGAGC

6460 6470 6480 6490 6500
* * * * *

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FIG. 4

Sheet 13 of 14

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TCCTTCTCAA TCTCTTGTAC TACACACTTT TGCTGCCCTC TAATGGAACA
AGGAAGAGTT AGAGAACATG ATGTGTGAAA ACGACGGGAG ATTACCTTGT

      6510       6520       6530       6540       6550
         *          *          *          *          *

CCAGTCCACC GCCTTCTTCA GCTCATCCCT ATCTTTAAAA CACAACCCTA
GGTCAGGTGG CGGAAGAAGT CGAGTAGGGA TAGAAATTTT GTGTTGGGAT

      6560       6570       6580       6590       6600
         *          *          *          *          *

CACGCAATTC ATGATCATCA ATCCACAAAC TAGACAAAGT ACACTGTTTT
GTGCGTTAAG TACTAGTAGT TAGGTGTTTG ATCTGTTTCA TGTGACAAAA

      6610       6620       6630       6640       6650
         *          *          *          *          *

GAAGCACTCG AATCAACAAC ACCTTTACTT AATAAGCACG CATACGGTAA
CTTCGTGAGC TTAGTTGTTG TGGAAATGAA TTATTCGTGC GTATGCCATT

      6660       6670       6680       6690       6700
         *          *          *          *          *

TACCTCTAAG CCTGGCACAT TCAAACCTTG TGTGCATCAT CTGAACCCGA
ATGGAGATTC GGACCGTGTA AGTTTGGAAC ACACGTAGTA GACTTGGGCT

      6710       6720       6730       6740       6750
         *          *          *          *          *

GTTTTTATCC GTTATTTCTC CATCCCCACC TCCACGAGTG CTACCATTTC
CAAAAATAGG CAATAAAGAG GTAGGGGTGG AGGTGCTCAC GATGGTAAAG

      6760       6770       6780       6790       6800
         *          *          *          *          *

CGAAGTCAGA ATTTTCCTCG TCTTCAATCC ACCCGTTACT GTTACCCACT
GCTTCAGTCT TAAAAGGAGC AGAAGTTAGG TGGGCAATGA CAATGGGTGA

      6810       6820       6830       6840       6850
         *          *          *          *          *

CCCTGAACCT CTAAACCATT ATCTCTCTCT ACTTTCACAG ATGCATGTGA
GGGACTTGGA GATTTGGTAA TAGAGAGAGA TGAAAGTGTC TACGTACACT

      6860       6870       6880       6890       6900
         *          *          *          *          *

CACATAATCA GTAGCTTCTT GGGGTTGTTG CGTCCTCTGT GTATTCGAGG
GTGTATTAGT CATCGAAGAA CCCCAACAAC GCAGGAGACA CATAAGCTCC

      6910       6920       6930       6940       6950
         *          *          *          *          *

AACTAGCGGG ATATTCTATT ACGGATGAAC AAGCAGCATG ATCAGTAACA
TTGATCGCCC TATAAGATAA TGCCTACTTG TTCGTCGTAC TAGTCATTGT

      6960       6970       6980       6990       7000
         *          *          *          *          *

TTATCAGATG TCGATTTCAC TTCCAAATAC AACTCCACAT TTCTTATAGA
AATAGTCTAC AGCTAAAGTG AAGGTTTATG TTGAGGTGTA AAGAATATCT

      7010       7020       7030       7040       7050
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         *          *          *          *          *
AGGATGATAA CTTGGAACTT CAAGCATAGT CTCCAAACTA GTGTCGTTCA
TCCTACTATT GAACCTTGAA GTTCGTATCA GAGGTTTGAT CACAGCAAGT

      7060       7070       7080       7090       7100
         *          *          *          *          *
CTACATGAAG AAGTAGATAG ATAAAGAGAT CCGGTGAAAC AACTACAGGA
GATGTACTTC TTCATCTATC TATTTCTCTA GGCCACTTTG TTGATGTCCT

      7110       7120       7130       7140       7150
         *          *          *          *          *
TACTTACCAA AATATATTGA ACACTGATTT CTGCAGCTGC AATCCAAAAA
ATGAATGGTT TTATATAACT TGTGACTAAA GACGTCGACG TTAGGTTTTT

      7160       7170       7180       7190       7200
         *          *          *          *          *
TTGGATAAAG ACCATTCAAC AATGTACTTA ACGCAGTCTT TTGCCTAACC
AACCTATTTC TGGTAAGTTG TTACATGAAT TGCGTCAGAA AACGGATTGG

      7210       7220       7230       7240       7250
         *          *          *          *          *
TTGACCGTTT TAGGAGTGGA TCCTTCATAG TAAACACCAT CAGGACCATA
AACTGGCAAA ATCCTCACCT AGGAAGTATC ATTTGTGGTA GTCCTGGTAT

      7260       7270       7280       7290       7300
         *          *          *          *          *
CTTGGTAGAA CCTTTCTCTC AAGGTTTCCA TCGCCATGAC CATAACAGTC
GAACCATCTT GGAAAGAGAG TTCCAAAGGT AGCGGTACTG GTATTGTCAG

      7310       7320       7330       7340       7350
         *          *          *          *          *
CTGCAGTGAA TTCTAAGAAA AATGTAAAAA ATTTTGGCCT AAACTCATAA
GACGTCACTT AAGATTCTTT TTACATTTTT TAAAACCGGA TTTGAGTATT

      7360       7370       7380       7390       7400
         *          *          *          *          *
TTCTTAACAT ACGAAACCAT GGAGAACTCC ATGTCTAAAA AATAAAGGCT
AAGAATTGTA TGCTTTGGTA CCTCTTGAGG TACAGATTTT TTATTTCCGA

      7410       7420       7430       7440       7450
         *          *          *          *          *
AAAGCTTTTT GGCGACAGAA GCAGATAAAT CCATTCAAAA CACATAAACT
TTTCGAAAAA CCGCTGTCTT CGTCTATTTA GGTAAGTTTT GTGTATTTGA

      7460       7470       7480       7490       7500
         *          *          *          *          *
CTAAACAATA AACAGTGATA CTCAATACTA AGACTTGTAA AGGTCTACGT
GATTTGTTAT TTGTCACTAT GAGTTATGAT TCTGAACATT TCCAGATGCA

      7510       7520       7530       7540
         *          *          *          *
AACTCAAAAC TGGAGAATTG TCAGATCGGG TGTGGCTAGT AGAAGCTT
TTGAGTTTTG ACCTCTTAAC AGTCTAGCCC ACACCGATCA TCTTCGAA
```

FIG. 5
Sheet 1 of 5

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          10          20          30          40          50
           *           *           *           *           *
TCGATCTTTA ACCAAATCCA GTTGATAAGG TCTCTTCGTT GATTAGCAGA
AGCTAGAAAT TGGTTTAGGT CAACTATTCC AGAGAAGCAA CTAATCGTCT

          60          70          80          90         100
           *           *           *           *           *
GATCTCTTTA ATTTGTGAAT TTCAATTCAT CGGAACCTGT TGATGGACAC
CTAGAGAAAT TAAACACTTA AAGTTAAGTA GCCTTGGACA ACTACCTGTG
                                                M  D  T>

         110         120         130         140         150
           *           *           *           *           *
CACCATTGAT GGATTCGCCG ATTCTTATGA AATCAGCAGC ACTAGTTTCG
GTGGTAACTA CCTAAGCGGC TAAGAATACT TTAGTCGTCG TGATCAAAGC
  T  I  D   G  F  A   D  S  Y  E   I  S  S   T  S  F>

         160         170         180         190         200
           *           *           *           *           *
TCGCTACCGA TAACACCGAC TCCTCTATTG TTTATCTGGC CGCCGAACAA
AGCGATGGCT ATTGTGGCTG AGGAGATAAC AAATAGACCG GCGGCTTGTT
V  A  T  D   N  T  D   S  S  I   V  Y  L  A   A  E  Q>

         210         220         230         240         250
           *           *           *           *           *
GTACTCACCG GACCTGATGT ATCTGCTCTG CAATTGCTCT CCAACAGCTT
CATGAGTGGC CTGGACTACA TAGACGAGAC GTTAACGAGA GGTTGTCGAA
 V  L  T   G  P  D  V   S  A  L   Q  L  L   S  N  S  F>

         260         270         280         290         300
           *           *           *           *           *
CGAATCCGTC TTTGACTCGC CGGATGATTT CTACAGCGAC GCTAAGCTTG
GCTTAGGCAG AAACTGAGCG GCCTACTAAA GATGTCGCTG CGATTCGAAC
  E  S  V   F  D  S   P  D  D  F   Y  S  D   A  K  L>

         310         320         330         340         350
           *           *           *           *           *
TTCTCTCCGA CGGCCGGGAA GTTTCTTTCC ACCGGTGCGT TTTGTCAGCG
AAGAGAGGCT GCCGGCCCTT CAAAGAAAGG TGGCCACGCA AAACAGTCGC
V  L  S  D   G  R  E   V  S  F   H  R  C  V   L  S  A>

         360         370         380         390         400
           *           *           *           *           *
AGAAGCTCTT TCTTCAAGAG CGCTTTAGCC GCCGCTAAGA AGGAGAAAGA
TCTTCGAGAA AGAAGTTCTC GCGAAATCGG CGGCGATTCT TCCTCTTTCT
 R  S  S   F  F  K  S   A  L  A   A  A  K   K  E  K  D>

         410         420         430         440         450
           *           *           *           *           *
CTCCAACAAC ACCGCCGCCG TGAAGCTCGA GCTTAAGGAG ATTGCCAAGG
GAGGTTGTTG TGGCGGCGGC ACTTCGAGCT CGAATTCCTC TAACGGTTCC
  S  N  N   T  A  A   V  K  L  E   L  K  E   I  A  K>
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5,965,808

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       460         470         480         490         500
         *           *           *           *           *
ATTACGAAGT CGGTTTCGAT TCGGTTGTGA CTGTTTTGGC TTATGTTTAC
TAATGCTTCA GCCAAAGCTA AGCCAACACT GACAAAACCG AATACAAATG
D  Y  E  V   G  F  D   S  V  V   T  V  L  A   Y  V  Y>

       510         520         530         540         550
         *           *           *           *           *
AGCAGCAGAG TGAGACCGCC GCCTAAAGGA GTTTCTGAAT GCGCAGACGA
TCGTCGTCTC ACTCTGGCGG CGGATTTCCT CAAAGACTTA CGCGTCTGCT
 S  S  R   V  R  P  P   P  K  G   V  S  E   C  A  D  E>

       560         570         580         590         600
         *           *           *           *           *
GAATTGCTGC CACGTGGCTT GCCGGCCGGC GGTGGATTTC ATGTTGGAGG
CTTAACGACG GTGCACCGAA CGGCCGGCCG CCACCTAAAG TACAACCTCC
  N  C  C   H  V  A   C  R  P  A   V  D  F   M  L  E>

       610         620         630         640         650
         *           *           *           *           *
TTCTCTATTT GGCTTTCATC TTCAAGATCC CTGAATTAAT TACTCTCTAT
AAGAGATAAA CCGAAAGTAG AAGTTCTAGG GACTTAATTA ATGAGAGATA
V  L  Y  L   A  F  I   F  K  I   P  E  L  I   T  L  Y>

       660         670         680         690         700
         *           *           *           *           *
CAGAGGCACT TATTGGACGT TGTAGACAAA GTTGTTATAG AGGACACATT
GTCTCCGTGA ATAACCTGCA ACATCTGTTT CAACAATATC TCCTGTGTAA
 Q  R  H   L  L  D  V   V  D  K   V  V  I   E  D  T  L>

       710         720         730         740         750
         *           *           *           *           *
GGTTATACTC AAGCTTGCTA ATATATGTGG TAAAGCTTGT ATGAAGCTAT
CCAATATGAG TTCGAACGAT TATATACACC ATTTCGAACA TACTTCGATA
  V  I  L   K  L  A   N  I  C  G   K  A  C   M  K  L>

       760         770         780         790         800
         *           *           *           *           *
TGGATAGATG TAAAGAGATT ATTGTCAAGT CTAATGTAGA TATGGTTAGT
ACCTATCTAC ATTTCTCTAA TAACAGTTCA GATTACATCT ATACCAATCA
L  D  R  C   K  E  I   I  V  K   S  N  V  D   M  V  S>

       810         820         830         840         850
         *           *           *           *           *
CTTGAAAAGT CATTGCCGGA AGAGCTTGTT AAAGAGATAA TTGATAGACG
GAACTTTTCA GTAACGGCCT TCTCGAACAA TTTCTCTATT AACTATCTGC
 L  E  K   S  L  P  E   E  L  V   K  E  I   I  D  R  R>

       860         870         880         890         900
         *           *           *           *           *
TAAAGAGCTT GGTTTGGAGG TACCTAAAGT AAAGAAACAT GTCTCGAATG
ATTTCTCGAA CCAAACCTCC ATGGATTTCA TTTCTTTGTA CAGAGCTTAC
  K  E  L   G  L  E   V  P  K  V   K  K  H   V  S  N>
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EXHIBIT - DOCUMENT 5

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       910        920        930        940        950
         *          *          *          *          *
TACATAAGGC ACTTGACTCG GATGATATTG AGTTAGTCAA GTTGCTTTTG
ATGTATTCCG TGAACTGAGC CTACTATAAC TCAATCAGTT CAACGAAAAC
V  H  K  A    L  D  S    D  D  I    E  L  V  K    L  L  L>

       960        970        980        990       1000
         *          *          *          *          *
AAAGAGGATC ACACCAATCT AGATGATGCG TGTGCTCTTC ATTTCGCTGT
TTTCTCCTAG TGTGGTTAGA TCTACTACGC ACACGAGAAG TAAAGCGACA
 K  E  D    H  T  N  L    D  D  A    C  A  L    H  F  A  V>

      1010       1020       1030       1040       1050
         *          *          *          *          *
TGCATATTGC AATGTGAAGA CCGCAACAGA TCTTTTAAAA CTTGATCTTG
ACGTATAACG TTACACTTCT GGCGTTGTCT AGAAAATTTT GAACTAGAAC
  A  Y  C    N  V  K    T  A  T  D    L  L  K    L  D  L>

      1060       1070       1080       1090       1100
         *          *          *          *          *
CCGATGTCAA CCATAGGAAT CCGAGGGGAT ATACGGTGCT TCATGTTGCT
GGCTACAGTT GGTATCCTTA GGCTCCCCTA TATGCCACGA AGTACAACGA
A  D  V  N    H  R  N    P  R  G    Y  T  V  L    H  V  A>

      1110       1120       1130       1140       1150
         *          *          *          *          *
GCGATGCGGA AGGAGCCACA ATTGATACTA TCTCTATTGG AAAAAGGTGC
CGCTACGCCT TCCTCGGTGT TAACTATGAT AGAGATAACC TTTTTCCACG
 A  M  R    K  E  P  Q    L  I  L    S  L  L    E  K  G  A>

      1160       1170       1180       1190       1200
         *          *          *          *          *
AAGTGCATCA GAAGCAACTT TGGAAGGTAG AACCGCACTC ATGATCGCAA
TTCACGTAGT CTTCGTTGAA ACCTTCCATC TTGGCGTGAG TACTAGCGTT
  S  A  S    E  A  T    L  E  G  R    T  A  L    M  I  A>

      1210       1220       1230       1240       1250
         *          *          *          *          *
AACAAGCCAC TATGGCGGTT GAATGTAATA ATATCCCGGA GCAATGCAAG
TTGTTCGGTG ATACCGCCAA CTTACATTAT TATAGGGCCT CGTTACGTTC
K  Q  A  T    M  A  V    E  C  N    N  I  P  E    Q  C  K>

      1260       1270       1280       1290       1300
         *          *          *          *          *
CATTCTCTCA AAGGCCGACT ATGTGTAGAA ATACTAGAGC AAGAAGACAA
GTAAGAGAGT TTCCGGCTGA TACACATCTT TATGATCTCG TTCTTCTGTT
 H  S  L    K  G  R  L    C  V  E    I  L  E    Q  E  D  K>

      1310       1320       1330       1340       1350
         *          *          *          *          *
ACGAGAACAA ATTCCTAGAG ATGTTCCTCC CTCTTTTGCA GTGGCGGCCG
TGCTCTTGTT TAAGGATCTC TACAAGGAGG GAGAAAACGT CACCGCCGGC
  R  E  Q    I  P  R    D  V  P  P    S  F  A    V  A  A>
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US 6,858,705 B2

FIG. 5

Sheet 4 of 5

```
       1360       1370       1380       1390       1400
          *          *          *          *          *
ATGAATTGAA GATGACGCTG CTCGATCTTG AAAATAGAGT TGCACTTGCT
TACTTAACTT CTACTGCGAC GAGCTAGAAC TTTTATCTCA ACGTGAACGA
D  E  L  K   M  T  L   L  D  L   E  N  R  V   A  L  A>

       1410       1420       1430       1440       1450
          *          *          *          *          *
CAACGTCTTT TTCCAACGGA AGCACAAGCT GCAATGGAGA TCGCCGAAAT
GTTGCAGAAA AAGGTTGCCT TCGTGTTCGA CGTTACCTCT AGCGGCTTTA
 Q  R  L   F  P  T  E   A  Q  A   A  M  E   I  A  E  M>

       1460       1470       1480       1490       1500
          *          *          *          *          *
GAAGGGAACA TGTGAGTTCA TAGTGACTAG CCTCGAGCCT GACCGTCTCA
CTTCCCTTGT ACACTCAAGT ATCACTGATC GGAGCTCGGA CTGGCAGAGT
  K  G  T   C  E  F   I  V  T  S   L  E  P   D  R  L>

       1510       1520       1530       1540       1550
          *          *          *          *          *
CTGGTACGAA GAGAACATCA CCGGGTGTAA AGATAGCACC TTTCAGAATC
GACCATGCTT CTCTTGTAGT GGCCCACATT TCTATCGTGG AAAGTCTTAG
T  G  T  K   R  T  S   P  G  V   K  I  A  P   F  R  I>

       1560       1570       1580       1590       1600
          *          *          *          *          *
CTAGAAGAGC ATCAAAGTAG ACTAAAAGCG CTTTCTAAAA CCGTGGAACT
GATCTTCTCG TAGTTTCATC TGATTTTCGC GAAAGATTTT GGCACCTTGA
 L  E  E   H  Q  S  R   L  K  A   L  S  K   T  V  E  L>

       1610       1620       1630       1640       1650
          *          *          *          *          *
CGGGAAACGA TTCTTCCCGC GCTGTTCGGC AGTGCTCGAC CAGATTATGA
GCCCTTTGCT AAGAAGGGCG CGACAAGCCG TCACGAGCTG GTCTAATACT
  G  K  R   F  F  P   R  C  S  A   V  L  D   Q  I  M>

       1660       1670       1680       1690       1700
          *          *          *          *          *
ACTGTGAGGA CTTGACTCAA CTGGCTTGCG GAGAAGACGA CACTGCTGAG
TGACACTCCT GAACTGAGTT GACCGAACGC CTCTTCTGCT GTGACGACTC
N  C  E  D   L  T  Q   L  A  C   G  E  D  D   T  A  E>

       1710       1720       1730       1740       1750
          *          *          *          *          *
AAACGACTAC AAAAGAAGCA AAGGTACATG GAAATACAAG AGACACTAAA
TTTGCTGATG TTTTCTTCGT TTCCATGTAC CTTTATGTTC TCTGTGATTT
 K  R  L   Q  K  K  Q   R  Y  M   E  I  Q   E  T  L  K>

       1760       1770       1780       1790       1800
          *          *          *          *          *
GAAGGCCTTT AGTGAGGACA ATTTGGAATT AGGAAATTCG TCCCTGACAG
CTTCCGGAAA TCACTCCTGT TAAACCTTAA TCCTTTAAGC AGGGACTGTC
  K  A  F   S  E  D   N  L  E  L   G  N  S   S  L  T>
```

FIG. 5

Sheet 5 of 5

```
      1810       1820       1830       1840       1850
         *          *          *          *          *
ATTCGACTTC TTCCACATCG AAATCAACCG GTGGAAAGAG GTCTAACCGT
TAAGCTGAAG AAGGTGTAGC TTTAGTTGGC CACCTTTCTC CAGATTGGCA
D  S  T  S   S  T  S   K  S  T   G  G  K  R   S  N  R>

      1860       1870       1880       1890       1900
         *          *          *          *          *
AAACTCTCTC ATCGTCGTCG GTGAGACTCT TGCCTCTTAG TGTAATTTTT
TTTGAGAGAG TAGCAGCAGC CACTCTGAGA ACGGAGAATC ACATTAAAAA
 K  L  S   H  R  R  R   *>

      1910       1920       1930       1940       1950
         *          *          *          *          *
GCTGTACCAT ATAATTCTGT TTTCATGATG ACTGTAACTG TTTATGTCTA
CGACATGGTA TATTAAGACA AAAGTACTAC TGACATTGAC AAATACAGAT

      1960       1970       1980       1990       2000
         *          *          *          *          *
TCGTTGGCGT CATATAGTTT CGCTCTTCGT TTTGCATCCT GTGTATTATT
AGCAACCGCA GTATATCAAA GCGAGAAGCA AAACGTAGGA CACATAATAA

      2010       2020       2030       2040       2050
         *          *          *          *          *
GCTGCAGGTG TGCTTCAAAC AAATGTTGTA ACAATTTGAA CCAATGGTAT
CGACGTCCAC ACGAAGTTTG TTTACAACAT TGTTAAACTT GGTTACCATA

      2060       2070       2080       2090       2100
         *          *          *          *          *
ACAGATTTGT AATATATATT TATGTACATC AACAATAAAA AAAAAAAAAA
TGTCTAAACA TTATATATAA ATACATGTAG TTGTTATTTT TTTTTTTTTT

AAAA
TTTT
```

FIG. 6A

```
NPR1        (323) NHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATLEGRTALMIAKQ (371)
                  N +   GYT LH AA +     +I  LL+  AS +E T+ G TAL IA++
ankyrin 3   (740) NAKTKNGYTALHQAAQQGHTHIINVLLQNNASPNELTVNGNTALAIARR (788)

NPR1        (262) KVKKHVSNVHKALDSDDIELVKLLLKED (289)
                  K K  +S +H A   D +  V+LLL+ +
ankyrin 3   (313) KTKNGLSPLHMATQGDHLNCVQLLLSRN (340)
```

FIG. 6B

1st repeat	(265)	KHVSNVHKALDSDDIELVKLLLKEDHTNLDDAC (297)
2nd repeat	(294)	DDACALHFAVAYCNVKTATDLLKLDLADVNHRN (326)
3rd repeat	(328)	RGYTVLHVAAMRKEPQLILSLLEKGASASEATL (360)
4th repeat	(361)	EGRTALMIAKQATMAVECNNIPEQCKHSLKGRL (393)

```
ANK consensus
(Michaely and Bennett)  G TPLHLAAR GHVEVVKLLLD GADVNA TK
                          A  I SQ NNLDIAEV  K   NPD  D
                             V  K   T M R   Q   SI   N
                                            E

(Bork)                    t otLHhAh  tt thht LLt t t
```

FIG. 7A
Sheet 1 of 5

```
        10         20         30         40         50
         *          *          *          *          *
GTGACTTTCT AACTATGGCT GAAATTGCAG AACGAAAAAG ACTTTCCATT
CACTGAAAGA TTGATACCGA CTTTAACGTC TTGCTTTTTC TGAAAGGTAA

        60         70         80         90        100
         *          *          *          *          *
TTTCACTTGA ATGAAACCCA AAATGGAAAT CTATCTCTCT TCTTCTTCTC
AAAGTGAACT TACTTTGGGT TTTACCTTTA GATAGAGAGA AGAAGAAGAG

       110        120        130        140        150
         *          *          *          *          *
TTTTACTACC TCCATTTCCA TGGCTTTCCC TCCTCTACCT TCCCTAGCTC
AAAATGATGG AGGTAAAGGT ACCGAAAGGG AGGAGATGGA AGGGATCGAG

       160        170        180        190        200
         *          *          *          *          *
TTTTCAATTT CTAGAATATT CTTTTCTTAG TCTGTAATTA TCTATAGCTC
AAAAGTTAAA GATCTTATAA GAAAAGAATC AGACATTAAT AGATATCGAG

       210        220        230        240        250
         *          *          *          *          *
AATTTCTAAG ACAGAACTTA TGTAAGGCGG CTTTCTGTAA TGGATAATAG
TTAAAGATTC TGTCTTGAAT ACATTCCGCC GAAAGACATT ACCTATTATC

       260        270        280        290        300
         *          *          *          *          *
TAGGACTGCG TTTTCTGATT CGAATGACAT CAGCGGAAGC AGTAGTATAT
ATCCTGACGC AAAAGACTAA GCTTACTGTA GTCGCCTTCG TCATCATATA

       310        320        330        340        350
         *          *          *          *          *
GCTGCATCGG CGGCGGCATG ACTGAATTTT TCTCGCCGGA GACTTCGCCG
CGACGTAGCC GCCGCCGTAC TGACTTAAAA AGAGCGGCCT CTGAAGCGGC

       360        370        380        390        400
         *          *          *          *          *
GCGGAGATCA CTTCACTGAA ACGCCTATCG GAAACACTGG AATCTATCTT
CGCCTCTAGT GAAGTGACTT TGCGGATAGC CTTTGTGACC TTAGATAGAA

       410        420        430        440        450
         *          *          *          *          *
CGATGCGTCT TTGCCGGAGT TTGACTACTT CGCCGACGCT AAGCTTGTGG
GCTACGCAGA AACGGCCTCA AACTGATGAA GCGGCTGCGA TTCGAACACC

       460        470        480        490        500
         *          *          *          *          *
TTTCCGGCCC GTGTAAGGAA ATTCCGGTGC ACCGGTGCAT TTTGTCGGCG
AAAGGCCGGG CACATTCCTT TAAGGCCACG TGGCCACGTA AAACAGCCGC

       510        520        530        540        550
         *          *          *          *          *
AGGAGTCCGT TCTTTAAGAA TTTGTTCTGC GGTAAAAAGG AGAAGAATAG
TCCTCAGGCA AGAAATTCTT AAACAAGACG CCATTTTTCC TCTTCTTATC
```

FIG. 7A

Sheet 2 of 5

```
       560        570        580        590        600
         *          *          *          *          *
TAGTAAGGTG GAATTGAAGG AGGTGATGAA AGAGCATGAG GTGAGCTATG
ATCATTCCAC CTTAACTTCC TCCACTACTT TCTCGTACTC CACTCGATAC

       610        620        630        640        650
         *          *          *          *          *
ATGCTGTAAT GAGTGTATTG GCTTATTTGT ATAGTGGTAA AGTTAGGCCT
TACGACATTA CTCACATAAC CGAATAAACA TATCACCATT TCAATCCGGA

       660        670        680        690        700
         *          *          *          *          *
TCACCTAAAG ATGTGTGTGT TTGTGTGGAC AATGACTGCT CTCATGTGGC
AGTGGATTTC TACACACACA AACACACCTG TTACTGACGA GAGTACACCG

       710        720        730        740        750
         *          *          *          *          *
TTGTAGGCCA GCTGTGGCAT TCCTGGTTGA GGTTTTGTAC ACATCATTTA
AACATCCGGT CGACACCGTA AGGACCAACT CCAAAACATG TGTAGTAAAT

       760        770        780        790        800
         *          *          *          *          *
CCTTTCAGAT CTCTGAATTG GTTGACAAGT TTCAGAGACA CCTACTGGAT
GGAAAGTCTA GAGACTTAAC CAACTGTTCA AAGTCTCTGT GGATGACCTA

       810        820        830        840        850
         *          *          *          *          *
ATTCTTGACA AAACTGCAGC AGACGATGTA ATGATGGTTT TATCTGTTGC
TAAGAACTGT TTTGACGTCG TCTGCTACAT TACTACCAAA ATAGACAACG

       860        870        880        890        900
         *          *          *          *          *
AAACATTTGT GGTAAAGCAT GCGAGAGATT GCTTTCAAGC TGCATTGAGA
TTTGTAAACA CCATTTCGTA CGCTCTCTAA CGAAAGTTCG ACGTAACTCT

       910        920        930        940        950
         *          *          *          *          *
TTATTGTCAA GTCTAATGTT GATATCATAA CCCTTGATAA AGCCTTGCCT
AATAACAGTT CAGATTACAA CTATAGTATT GGGAACTATT TCGGAACGGA

       960        970        980        990       1000
         *          *          *          *          *
CATGACATTG TAAAACAAAT TACTGATTCA CGAGCGGAAC TTGGTCTACA
GTACTGTAAC ATTTTGTTTA ATGACTAAGT GCTCGCCTTG AACCAGATGT

      1010       1020       1030       1040       1050
         *          *          *          *          *
AGGGCCTGAA AGCAACGGTT TTCCTGATAA ACATGTTAAG AGGATACATA
TCCCGGACTT TCGTTGCCAA AAGGACTATT TGTACAATTC TCCTATGTAT

      1060       1070       1080       1090       1100
         *          *          *          *          *
GGGCATTGGA TTCTGATGAT GTTGAATTAC TACAAATGTT GCTAAGAGAG
```

```
CCCGTAACCT AAGACTACTA CAACTTAATG ATGTTTACAA CGATTCTCTC

      1110        1120        1130        1140        1150
         *           *           *           *           *
GGGCATACTA CCCTAGATGA TGCATATGCT CTCCATTATG CTGTAGCGTA
CCCGTATGAT GGGATCTACT ACGTATACGA GAGGTAATAC GACATCGCAT

      1160        1170        1180        1190        1200
         *           *           *           *           *
TTGCGATGCA AAGACTACAG CAGAACTTCT AGATCTTGCA CTTGCTGATA
AACGCTACGT TTCTGATGTC GTCTTGAAGA TCTAGAACGT GAACGACTAT

      1210        1220        1230        1240        1250
         *           *           *           *           *
TTAATCATCA AAATTCAAGG GGATACACGG TGCTGCATGT TGCAGCCATG
AATTAGTAGT TTTAAGTTCC CCTATGTGCC ACGACGTACA ACGTCGGTAC

      1260        1270        1280        1290        1300
         *           *           *           *           *
AGGAAAGAGC CTAAAATTGT AGTGTCCCTT TTAACCAAAG GAGCTAGACC
TCCTTTCTCG GATTTTAACA TCACAGGGAA AATTGGTTTC CTCGATCTGG

      1310        1320        1330        1340        1350
         *           *           *           *           *
TTCTGATCTG ACATCCGATG GAAGAAAAGC ACTTCAAATC GCCAAGAGGC
AAGACTAGAC TGTAGGCTAC CTTCTTTTCG TGAAGTTTAG CGGTTCTCCG

      1360        1370        1380        1390        1400
         *           *           *           *           *
TCACTAGGCT TGTGGATTTC AGTAAGTCTC CGGAGGAAGG AAAATCTGCT
AGTGATCCGA ACACCTAAAG TCATTCAGAG GCCTCCTTCC TTTTAGACGA

      1410        1420        1430        1440        1450
         *           *           *           *           *
TCGAATGATC GGTTATGCAT TGAGATTCTG GAGCAAGCAG AAAGAAGAGA
AGCTTACTAG CCAATACGTA ACTCTAAGAC CTCGTTCGTC TTTCTTCTCT

      1460        1470        1480        1490        1500
         *           *           *           *           *
CCCTCTGCTA GGAGAAGCTT CTGTATCTCT TGCTATGGCA GGCGATGATT
GGGAGACGAT CCTCTTCGAA GACATAGAGA ACGATACCGT CCGCTACTAA

      1510        1520        1530        1540        1550
         *           *           *           *           *
TGCGTATGAA GCTGTTATAC CTTGAAAATA GAGTTGGCCT GGCTAAACTC
ACGCATACTT CGACAATATG GAACTTTTAT CTCAACCGGA CCGATTTGAG

      1560        1570        1580        1590        1600
         *           *           *           *           *
CTTTTTCCAA TGGAAGCTAA AGTTGCAATG GACATTGCTC AAGTTGATGG
GAAAAAGGTT ACCTTCGATT TCAACGTTAC CTGTAACGAG TTCAACTACC

      1610        1620        1630        1640        1650
         *           *           *           *           *
```

US 6,686,463 B2

```
CACTTCTGAG TTCCCACTGG CTAGCATCGG CAAAAAGATG GCTAATGCAC
GTGAAGACTC AAGGGTGACC GATCGTAGCC GTTTTTCTAC CGATTACGTG

      1660      1670      1680      1690      1700
         *         *         *         *         *
AGAGGACAAC AGTAGATTTG AACGAGGCTC CTTTCAAGAT AAAAGAGGAG
TCTCCTGTTG TCATCTAAAC TTGCTCCGAG GAAAGTTCTA TTTTCTCCTC

      1710      1720      1730      1740      1750
         *         *         *         *         *
CACTTGAATC GGCTTAGAGC ACTCTCTAGA ACTGTAGAAC TTGGAAAACG
GTGAACTTAG CCGAATCTCG TGAGAGATCT TGACATCTTG AACCTTTTGC

      1760      1770      1780      1790      1800
         *         *         *         *         *
CTTCTTTCCA CGTTGTTCAG AAGTTCTAAA TAAGATCATG GATGCTGATG
GAAGAAAGGT GCAACAAGTC TTCAAGATTT ATTCTAGTAC CTACGACTAC

      1810      1820      1830      1840      1850
         *         *         *         *         *
ACTTGTCTGA GATAGCTTAC ATGGGGAATG ATACGGCAGA AGAGCGTCAA
TGAACAGACT CTATCGAATG TACCCCTTAC TATGCCGTCT TCTCGCAGTT

      1860      1870      1880      1890      1900
         *         *         *         *         *
CTGAAGAAGC AAAGGTACAT GGAACTTCAA GAAATTCTGA CTAAAGCATT
GACTTCTTCG TTTCCATGTA CCTTGAAGTT CTTTAAGACT GATTTCGTAA

      1910      1920      1930      1940      1950
         *         *         *         *         *
CACTGAGGAT AAAGAAGAAT ATGATAAGAC TAACAACATC TCCTCATCTT
GTGACTCCTA TTTCTTCTTA TACTATTCTG ATTGTTGTAG AGGAGTAGAA

      1960      1970      1980      1990      2000
         *         *         *         *         *
GTTCCTCTAC ATCTAAGGGA GTAGATAAGC CCAATAAGCT CCCTTTTAGG
CAAGGAGATG TAGATTCCCT CATCTATTCG GGTTATTCGA GGGAAAATCC

      2010      2020      2030      2040      2050
         *         *         *         *         *
AAATAGGTAA TTGTATTAGG ATATATGAGG AAGAAGAGGA TTTTCTTGTA
TTTATCCATT AACATAATCC TATATACTCC TTCTTCTCCT AAAAGAACAT

      2060      2070      2080      2090      2100
         *         *         *         *         *
ACATAGCACT CTTTCCTTTC ATCATTTGAT ATGTCAACAT ACATACAACA
TGTATCGTGA GAAAGGAAAG TAGTAAACTA TACAGTTGTA TGTATGTTGT

      2110      2120      2130      2140      2150
         *         *         *         *         *
GCTGTACCAT AAACTTGTAT TGTTGCACTT ACAACTTTGA AGAACAGAAT
CGACATGGTA TTTGAACATA ACAACGTGAA TGTTGAAACT TCTTGTCTTA

      2160      2170
```

```
          *           *
TTATTTGAAA AAAAAAAAAA AA
AATAAACTTT TTTTTTTTTT TT
```

5,858,652

FIG.7B

```
                                                  50
         *         *         *         *         *
MDNSRTAFSDSNDISGSSSICCIGGGMTEFFSPETSPAEITSLKRLSETL

                                                 100
         *         *         *         *         *
ESIFDASLPEFDYFADAKLVVSGPCKEIPVHRCILSARSPFFKNLFCGKK

                                                 150
         *         *         *         *         *
EKNSSKVELKEVMKEHEVSYDAVMSVLAYLYSGKVRPSPKDVCVCVDNDC

                                                 200
         *         *         *         *         *
SHVACRPAVAFLVEVLYTSFTFQISELVDKFQRHLLDILDKTAADDVMMV

                                                 250
         *         *         *         *         *
LSVANICGKACERLLSSCIEIIVKSNVDIITLDKALPHDIVKQITDSRAE

                                                 300
         *         *         *         *         *
LGLQGPESNGFPDKHVKRIHRALDSDDVELLQMLLREGHTTLDDAYALHY

                                                 350
         *         *         *         *         *
AVAYCDAKTTAELLDLALADINHQNSRGYTVLHVAAMRKEPKIVVSLLTK

                                                 400
         *         *         *         *         *
GARPSDLTSDGRKALQIAKRLTRLVDFSKSPEEGKSASNDRLCIEILEQA

                                                 450
         *         *         *         *         *
ERRDPLLGEASVSLAMAGDDLRMKLLYLENRVGLAKLLFPMEAKVAMDIA

                                                 500
         *         *         *         *         *
QVDGTSEFPLASIGKKMANAQRTTVDLNEAPFKIKEEHLNRLRALSRTVE

                                                 550
         *         *         *         *         *
LGKRFFPRCSEVLNKIMDADDLSEIAYMGNDTAEERQLKKQRYMELQEIL

         *         *         *
TKAFTEDKEEYDKTNNISSSCSSTSKGVDKPNKLPFRK
```

US 6,506,603 B1

FIG. 8A

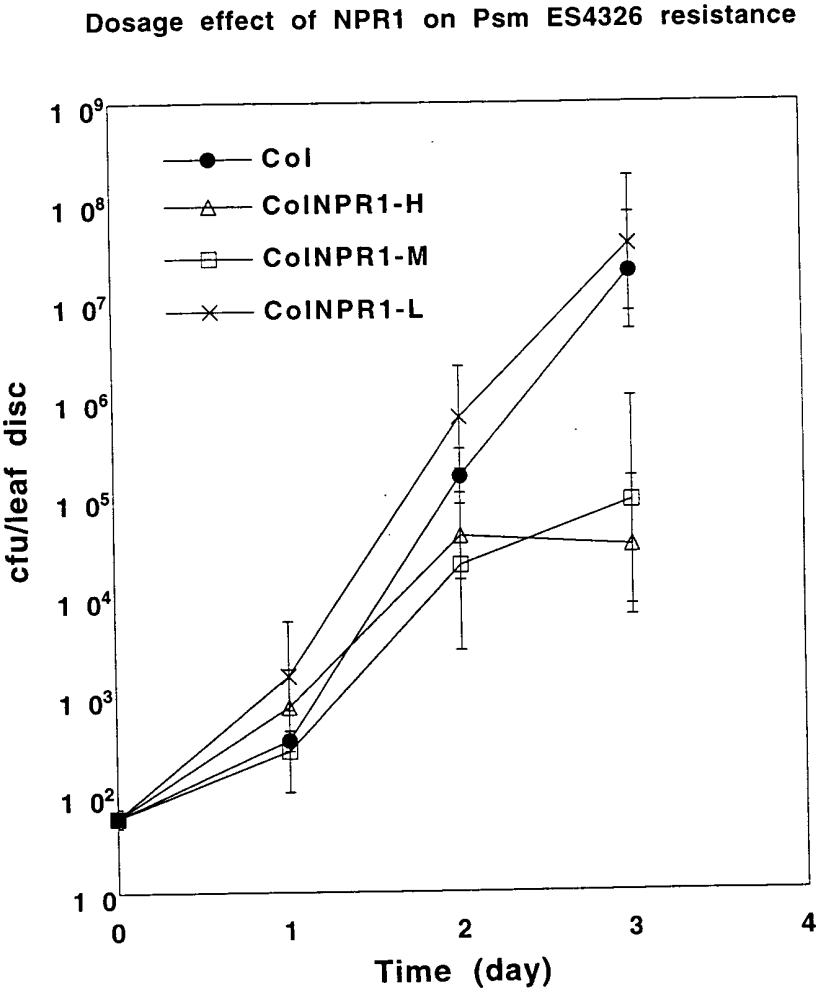

Dosage effect of NPR1 on Psm ES4326 resistance
Col
ColNPR1-H
ColNPR1-M
ColNPR1-L
cfu/leaf disc
1 0^9
1 0^8
1 0^7
1 0^6
1 0^5
1 0^4
1 0^3
1 0^2
1 0
0
1
2
3
4
Time (day)

FIG. 8B

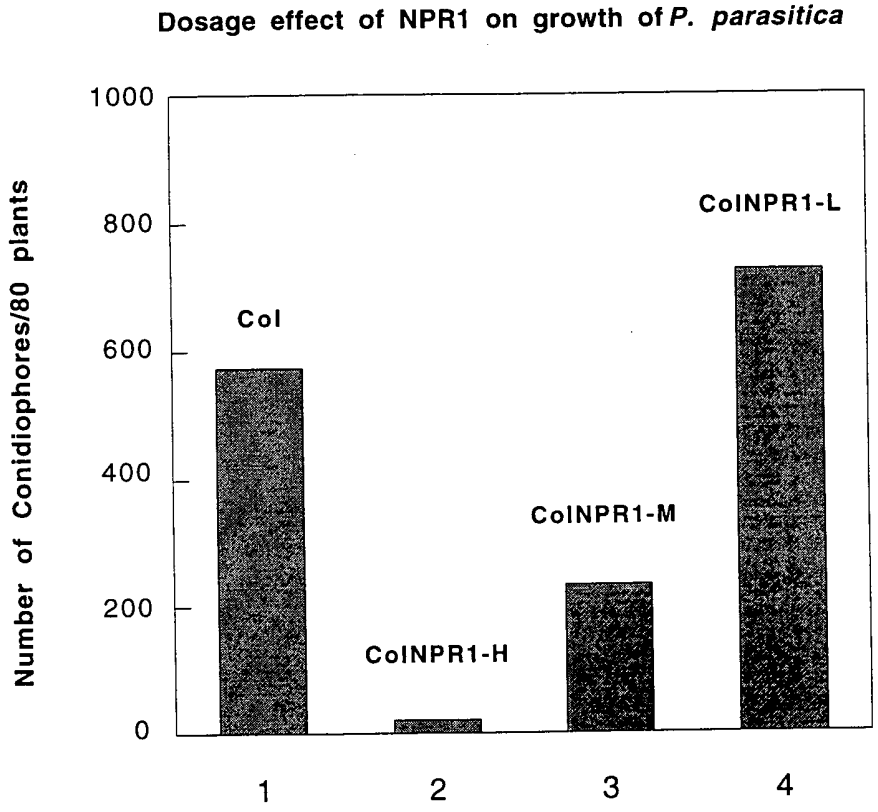

Dosage effect of NPR1 on growth of P. parasitica
Number of Conidiophores/80 plants
1000
800
600
400
200
0
Col
ColNPR1-H
ColNPR1-M
ColNPR1-L
1
2
3
4

FIG. 9A

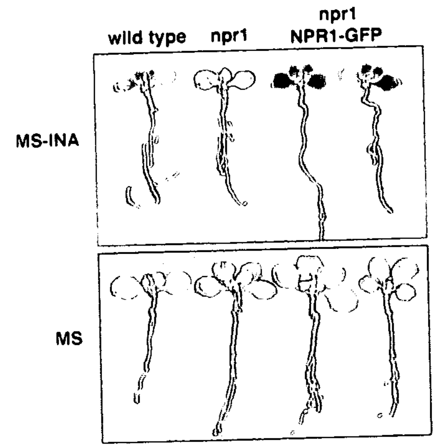


FIG. 9B

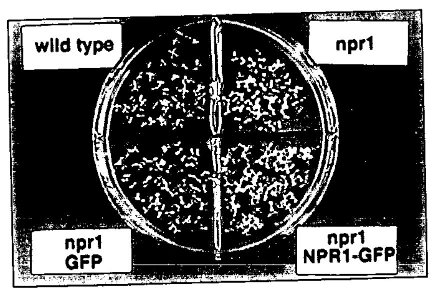


FIG. 9C

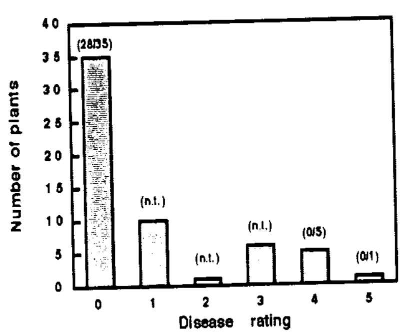
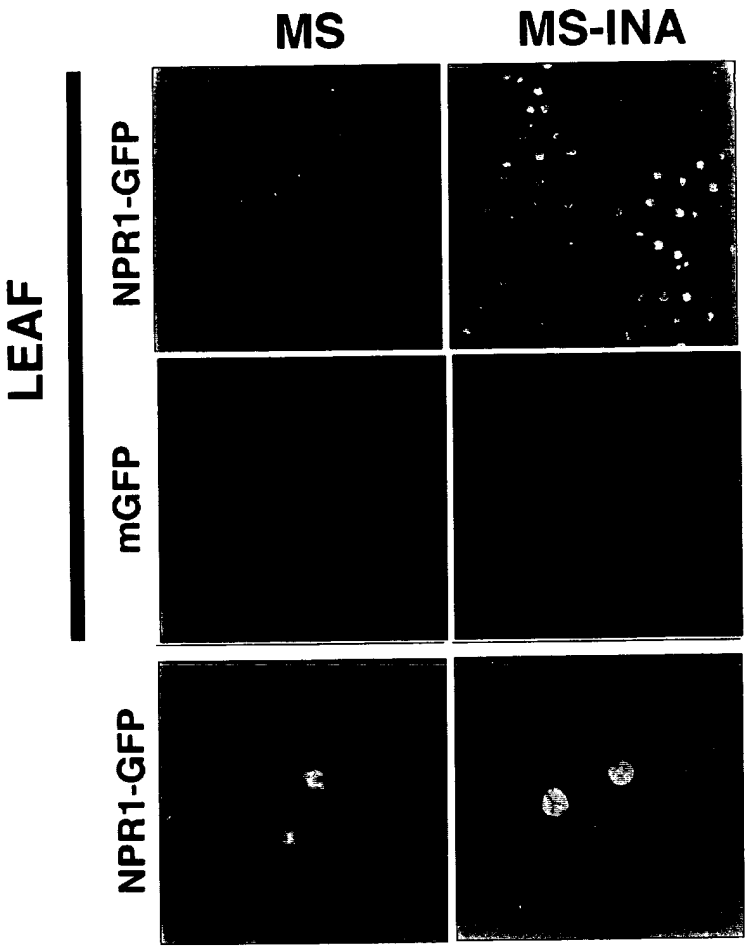


FIG. 10



FIGS. 11A-11G